We claim:

1. A method for driving a printing press, which comprises driving, in a printing operation, via a gear train by at least a first motor, at least one drum for advancing printing material and a printing-form cylinder; processing angle-of-rotation signals of the drum in a control device for controlling the driving of the drum and the form cylinder; driving, in a printing-form production operation in the printing press, a printing-form cylinder by a separate motor; and in an operation for producing the printing form, synchronously actuating the first motor and the separate motor by providing a gear allocated to the driving of the printing-form cylinder, and an adjacent gear allocated to the driving of the drum of the gear train, the gears being disposed relative to one another at most out of contact with one another, and at least barely in engagement with one another so as to exert a slight pressure on one another.

2. The method according to claim 1, which further comprises, during the printing-form production operation, processing in the control device signals indicating the angle of rotation of the printing-form cylinder.

3. A printing press comprising a gear train for driving a printing-form cylinder and at least one drum for advancing printing material; at least one first motor for driving the

printing press during a printing operation and an additional motor for driving said printing-form cylinder during a production of a printing form in the printing press; a rotary position transducer for detecting an angular position of said printing-form cylinder and said drum, respectively, during the printing operation; a motor control device connected to said rotary position transducer; and an additional rotary position transducer connected to said motor control device for detecting an angular position of said printing-form cylinder during said production of said printing form.